Iran Chamber of Commerce,

Industries, Mines and Agriculture

From Flaring to Value

Outlook for

Flare-Gas Recovery and Investment in Iran

October 2026

Energy Commission

Prepared by: Erfan Afazeli

Published by: Iran Chamber of Commerce, Industries, Mines & Agriculture (ICCIMA)

Strategic Support: Energy Commission of ICCIMA, Iranian Federation of Petroleum Industry (IFPI)

Scientific Support: ICCIMA's COP31 Scientific Working Group

Publication Date: October 2026

Occasion: Prepared for presentation at the 31st Conference of the Parties to the UNFCCC (COP31)

Target Audience: This report is intended for international and bilateral policymakers, climate finance institutions, industrial investors, technology providers, technical experts, and multilateral environmental organizations interested in exploring opportunities for investment, technology transfer, and industrial cooperation with Iran's private sector.

Access & Rights: Open Access. This publication is freely accessible to the public. Non-commercial reproduction, distribution, and translation are permitted with appropriate attribution to the ICCIMA. Commercial reproduction or use requires prior written authorization from the ICCIMA.

Table of Contents

Abstract 2
1. Introduction 3
2. Global Flaring Status 4
2.1. Assessment of Flaring Conditions and Flaring-Reduction Legislation in Selected Countries 5
3. Assessment of Gas Flaring and Flare-Gas Recovery in Iran 7
3.1. Flaring Conditions in Iran 7
3.2. Emissions-Reduction Targets and Commitments through the End of the Seventh Development Plan 7
3.2.1. Implementation Commitments 7
3.2.2. Requirements for Achieving the Targets 8
3.3. Emissions-Reduction Measures Implemented 9
3.4. Development of Infrastructure and Major Projects in Iran's Oil Industry 10
3.5. Technology Bottlenecks and Requirements 11
3.5.1. Technologies Required Across the Associated-Gas Management Chain 11
3.6. Assessment of Investment Needs and Identification of International Cooperation Opportunities (B2B) 13
4. Economic, Environmental and Climate Impacts 15
5. Conclusions: Assessment of Flaring in Iran and Policy Recommendations 16

Abstract

Associated-gas capture and recovery in Iran has entered a new phase. The National Iranian Oil Company (NIOC) has expanded gas-gathering and processing infrastructure, strengthened domestic technical capabilities, engaged private investors, and pursued industrial and technology partnerships. Together, these measures have created scope for a substantial increase in the amount of gas recovered instead of flared. They also represent an important step towards better energy efficiency, reduced losses of hydrocarbon resources, and improved environmental performance in upstream oil and gas operations.

According to operational figures provided by the Ministry of Petroleum, Iran's aggregate flare-gas collection rate rose from approximately 7.9 million cubic metres per day (mcm/d) at the end of Iranian year 1403 to 15.3 mcm/d at the end of 1404, reaching around 36 mcm/d in 1405. The reported increase—more than fourfold relative to 1403—points to a marked acceleration in the development of associated-gas recovery infrastructure. Subject to completion of projects currently under way, capacity is expected to reach approximately 52 mcm/d by the end of 1406 and 54 mcm/d by the end of 1407.

If the projected end-1407 capacity is achieved and maintained throughout the year, it would correspond to approximately 19.7 billion cubic metres (bcm) of recovered gas annually. That is around 23% above the 16 bcm annual target set by Iran's Seventh Development Plan.

A distinctive feature of this expansion is the combination of locally developed engineering expertise, equipment and technologies with technical and industrial engagement with overseas partners. Projects such as the Dehloran NGL 3100 facility, the Hoveyzeh NGL 3200 facility, gathering and processing assets associated with the Persian Gulf Bid Boland Gas Refinery, Maroon Petrochemical projects, and offshore associated-gas recovery schemes illustrate the gradual build-out of a domestic recovery value chain. In several projects, extensive use of locally manufactured equipment, supported by Iranian engineering, contracting and technology-based companies, has been complemented by international technology cooperation and equipment procurement. This has enabled increasingly complex gathering, compression, transmission and processing projects. Private-sector investors and petrochemical operators have also played an important role in expanding implementation capacity.

The benefits extend beyond direct environmental improvements. Recovering gas that would otherwise be burned without economic use can raise the productivity of natural resources, develop the gas value chain, strengthen industrial infrastructure, and create new opportunities for investment and employment. Flare-gas recovery projects may therefore contribute to several United Nations Sustainable Development Goals, notably SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation and Infrastructure), SDG 12 (Responsible Consumption and Production), and SDG 13 (Climate Action).

Taken together, the rapid growth in collection capacity suggests the emergence of an industrial development pathway in which economic returns and environmental objectives can reinforce one another.

1. Introduction

Gas flaring occurs across the oil, gas and petrochemical industries, typically when associated gas or surplus process gas cannot be gathered, transported or used commercially. It has been a persistent feature of the petroleum industry for roughly 160 years. Along the hydrocarbon value chain, flaring is concentrated in five areas: upstream oil production, liquefied natural gas (LNG) facilities, refineries, petrochemical plants, and gas transmission and storage systems. Whether the gas comes directly from a producing reservoir or arises as a process by-product, it may be burned because suitable infrastructure is unavailable or because operational safety requires it. Reducing flaring therefore calls for investment in gas-gathering and recovery infrastructure, better monitoring technology, and regulatory measures that discourage avoidable flaring.

Upstream oil production is one of the principal sources. Associated gas is produced alongside crude oil and brought to the surface with it. Where the facilities needed to collect and transport that gas are absent—or cannot be justified economically—operators often resort to flaring. The problem is especially pronounced offshore and at fields far from established gas transmission networks.

Flaring is also relevant to LNG operations. During liquefaction, storage and shipping, a portion of the product evaporates as boil-off gas. If recovery or reuse systems are not available during storage or vessel loading, that gas may have to be flared. Many flare-reduction programmes at LNG facilities consequently focus on equipment that captures and recycles boil-off gas.

Refineries are another important source. Surplus gases can arise during routine processing, particularly during unit start-up and shutdown or in emergencies when gas pressure or volume exceeds safe operating limits. Routing these streams to a flare protects personnel and equipment. Petrochemical plants face similar conditions, including process off-gases and releases during production-line start-up or shutdown. Where their recovery is not economically viable, flaring may remain the final disposal option.

Flaring also occurs in gas pipelines and storage installations. When pipelines are depressurised for inspection or maintenance, released gas is often flared for safety. Such activity is generally classified as non-routine flaring because it is not part of normal day-to-day operations. Shared fields and smaller facilities present a related challenge: gas volumes can be too limited to justify dedicated collection pipelines and transport infrastructure.

2. Global Flaring Status

Global gas flaring has increased again in recent years. In 2024, it rose by 3 billion cubic metres to 162 billion cubic metres, a volume equivalent to Africa's annual gas consumption and worth approximately US$63 billion. This enormous waste of energy is occurring while more than half a billion people in developing countries lack access to reliable energy, and only five years remain until the 2030 deadline for the global initiative to end routine flaring. Figure 1-1 presents oil production alongside flaring volumes at the global level and illustrates the increase in flaring worldwide in recent years.

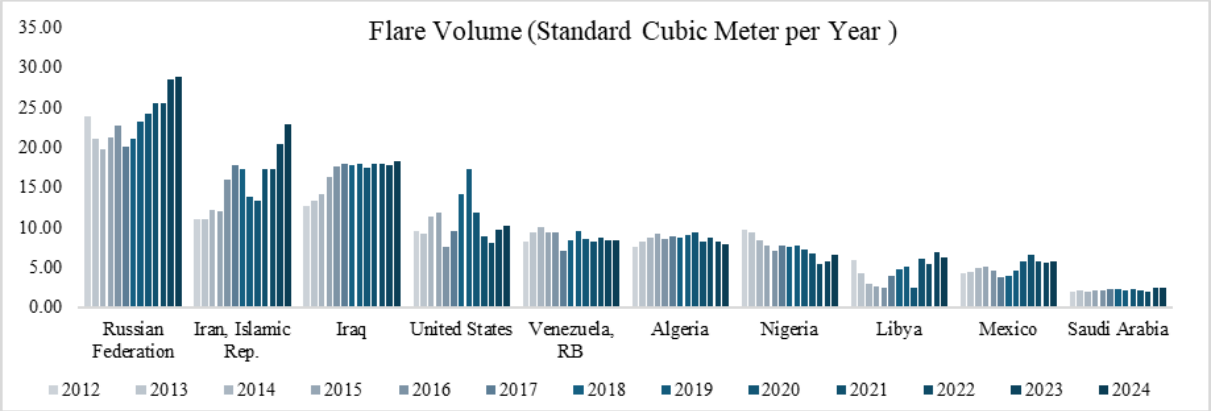


Figure 1. Flaring volume in different countries.

This situation, arising from a lack of political will, weak commitment and inadequate infrastructure, underscores the need to accelerate efforts to reduce flaring.

Gas flaring is recognised as a global problem. International organisations, including the World Bank, have undertaken extensive efforts to end the practice through initiatives such as Zero Routine Flaring by 2030 (ZRF). These efforts emphasise regulatory approaches, environmental charges, and the development of technologies to collect and utilise flare gas. The successful implementation of these solutions nevertheless requires a thorough understanding of each country's local conditions, legal and regulatory structure, and technological capabilities. According to data published by NOAA, approximately 75% of global flaring between 2019 and 2023 was concentrated in nine countries, which together accounted for nearly 46% of global oil production.

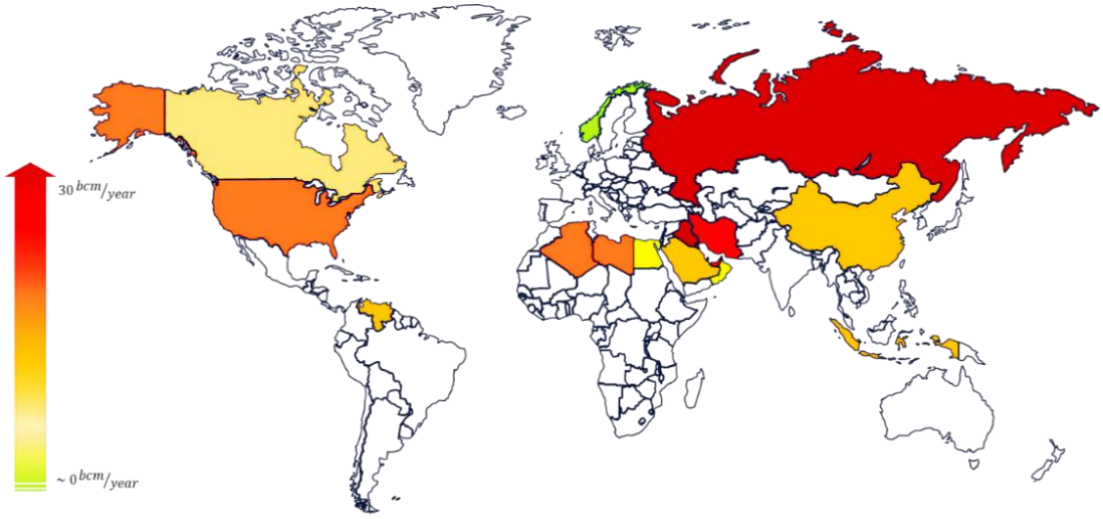


Figure 2. Map of flare volume, 2024.

2.1. Assessment of Flaring Conditions and Flaring-Reduction Legislation in Selected Countries

Many leading oil- and gas-producing countries, recognising the multiple dimensions of flaring, have adopted successful strategies to reduce it. Norway, for example, has achieved a 90% reduction in flaring through a carbon tax introduced in 1991 and stringent permitting systems. The United States has also made considerable progress through strict state-level regulations in oil-producing states such as North Dakota and Texas, economic instruments including royalties and penalties, and incentives for gas-to-liquids (GTL) and power-generation technologies. In Brazil and Kazakhstan, binding requirements for reinjection into reservoirs or utilisation for industrial purposes, together with legal frameworks allowing private investment in gas-gathering projects, have produced positive results. Neighbouring countries such as Iraq have likewise launched major projects with foreign investors to convert flare gas into valuable products or electricity. These experiences show that success in flaring reduction depends on a combination of strong legal instruments, effective economic incentives, and targeted investment in modern technologies. The flaring conditions and policies adopted in several countries are discussed below.

Reducing associated-gas flaring, as a major energy and environmental challenge, requires approaches that can address the technical, economic and institutional dimensions of the issue simultaneously.

Energy policy generally distinguishes two broad approaches: command-and-control regulation and market-based instruments. The regulatory approach relies on performance standards, restrictions, prohibitions and penalties to change operator behaviour. Some jurisdictions prohibit routine flaring except during emergencies or temporary operational events. Standards for flaring intensity, continuous measurement, and escalating penalties can all be important tools. To influence investment decisions, financial penalties must make persistent flaring more

costly than viable recovery and utilisation options. Such measures also depend on credible measurement, reporting and verification (MRV), including independent checks that supply regulators with reliable data and discourage non-compliance.

Market-based approaches rest on a complementary proposition: operators are more likely to sustain changes when capturing and using associated gas makes commercial sense. Carbon or methane taxes and emissions trading systems (ETS) put a price on the external costs of emissions. Avoiding flaring can then reduce a company's tax exposure or, where eligible, create tradable emissions credits. Results-based financing, contracts for difference (CfDs), and reverse auctions for verified emissions reductions may also help manage revenue risks and improve project bankability. Tax relief, reduced royalties for associated-gas recovery investments, and non-discriminatory access to pipelines, processing facilities and storage assets can further improve commercial prospects.

Experience from countries that have successfully reduced flaring highlights the importance of designing an integrated approach in which regulatory and market-based instruments complement one another. Strict regulations establish a minimum performance threshold and basic requirements, while market mechanisms provide the economic incentives to go beyond that threshold. In other words, when flaring is legally restricted and costly while the use of associated gas becomes profitable and economically attractive, a policy environment emerges in which economic and environmental interests align. An effective combination of regulatory and market-based instruments can thus provide a durable framework for reducing flaring and, ultimately, greenhouse-gas emissions, while facilitating the transition to a more efficient and lower-carbon energy system.

3. Assessment of Gas Flaring and Flare-Gas Recovery in Iran

3.1. Flaring Conditions in Iran

As a major crude-oil producer, Iran has accounted for a substantial share of flaring and has consistently ranked among countries with high flaring levels. A World Bank study of Iran indicates that, despite the considerable potential for recovering and utilising associated gas, sufficient effective action had not been taken in this field by 2024. Under Iran's national laws and overarching policy documents, including its development plans and Resistance Economy policies, reducing energy waste and combating environmental pollution are major priorities. In this context, instruments such as pollution charges and penalties for energy waste in industry have received attention.

3.2. Emissions-Reduction Targets and Commitments through the End of the Seventh Development Plan

Clear targets and commitments are essential to energy-sector emissions policy and to assessing whether mitigation programmes are delivering results. In associated-gas management, the principal objectives are to reduce flaring, increase gas recovery, avoid the loss of hydrocarbon resources, and limit greenhouse-gas emissions through infrastructure development, legal reform and effective monitoring and reporting.

Although the objectives of the Seventh Development Plan are not presented individually as quantitative indicators, a set of strategic objectives, implementation commitments, and priority measures for flaring management and emissions reduction can be identified. These focus on reforming governance, developing technical infrastructure, and strengthening oversight mechanisms.

The report groups the main objectives for flaring management through the end of the Seventh Development Plan as follows:

- Gradually reduce routine flaring at oil and gas fields.
- Increase the recovery and productive use of associated gas.
- Reduce greenhouse-gas emissions and other pollutants associated with flaring.
- Prevent hydrocarbon losses and improve energy efficiency.
- Expand associated-gas collection, transmission and processing infrastructure.
- Improve transparency, accountability and emissions monitoring in the oil industry.

3.2.1. Implementation Commitments

- **Build out associated-gas gathering and processing infrastructure**
  A central implementation priority is to complete gathering and processing infrastructure by expanding transmission pipelines, gas-processing units and recovery technologies. The report calls for unfinished projects to be prioritised, together with small-scale processing solutions that could reduce flaring more quickly.

- **Establish a national monitoring, reporting and verification (MRV) system**
  The report proposes a national flaring-monitoring platform combining satellite observations, thermal imagery and field measurements. It would support continuous volume measurement, emissions records, periodic disclosure and verification of operator performance. The system should connect the Ministry of Petroleum, NIOC and the Department of Environment, with summary data made public to strengthen transparency and accountability.

- **Introduce mandatory reporting**
  The Development Plan calls for mandatory reporting by oil and gas field operators. Operators would submit flared volumes, the reasons for flaring, corrective actions and reduction plans at specified intervals to a national monitoring authority, allowing progress and compliance to be reviewed consistently.

- **Reform the legal and economic framework**
  To advance emissions-reduction goals, the report recommends binding limits on routine flaring alongside economic measures such as escalating penalties, financial incentives and other mechanisms designed to strengthen the commercial case for associated-gas recovery.

- **Strengthen governance and institutional coordination**
  The report advocates a national coordinating body involving the Ministry of Petroleum, the Department of Environment, and the Plan and Budget Organization. Its remit would cover inter-agency coordination, performance monitoring, resource allocation, penalties and assessment of progress against flaring-reduction plans.

3.2.2. Requirements for Achieving the Targets

Meeting these objectives will require action on a range of technical, financial and institutional constraints. The principal requirements are:

- Complete associated-gas gathering and processing infrastructure projects.
- Secure stable, long-term project financing.
- Establish a national MRV platform.
- Develop associated-gas recovery and processing technologies.
- Reform regulation and strengthen enforcement.
- Improve coordination among implementing agencies.
- Build technical skills and training capacity in emissions monitoring and management.

Delivery of the Seventh Development Plan’s emissions objectives requires infrastructure, technology, institutions and regulation to advance together. Priorities include completing gathering and processing assets, establishing national MRV capabilities, improving the legal framework, using economic instruments effectively, and strengthening coordination across responsible bodies.

3.3. Emissions-Reduction Measures Implemented

In the oil and gas sector, associated-gas management and lower flaring volumes have been central to efforts to reduce greenhouse-gas emissions. Measures have sought to limit direct emissions of carbon dioxide, methane and other pollutants from the combustion or release of associated gas, improve energy efficiency, and bring recoverable gas into productive use. Actions fall into four groups: gas-gathering infrastructure, processing projects, legal and regulatory measures, and monitoring and reporting systems. The most significant practical intervention has been the expansion of associated-gas gathering and processing facilities, allowing gas that would otherwise be flared to be used as industrial feedstock, power-generation fuel or gas for reinjection into oil reservoirs.

Table 8 of Article 42 of the Seventh Five-Year Development Plan (1403–1407) sets a flare-gas collection target of 16 billion cubic metres per year by the end of the plan, equivalent to approximately 43.8 million cubic metres per day when expressed as a uniform annual rate. The importance of flaring reduction is not confined to Iran. According to World Bank satellite estimates, global flaring volumes in 2023, 2024 and 20205 were approximately 148, 151 and 167 billion cubic metres, respectively.

Operational data supplied by the Ministry of Petroleum distinguish reported collection performance from the planned increase in capacity. The pattern suggests a shift from isolated, relatively small projects towards a combination of major gas-processing facilities and smaller, rapidly deployable on-site schemes.

Table 1. Annual rate of flare-gas recovery in Iran between 2024 and 2028

Year	Cumulative year-end recovery rate (million m³/day)
1403	7.9
1404	15.3
1405	36
1406	52
1407	54

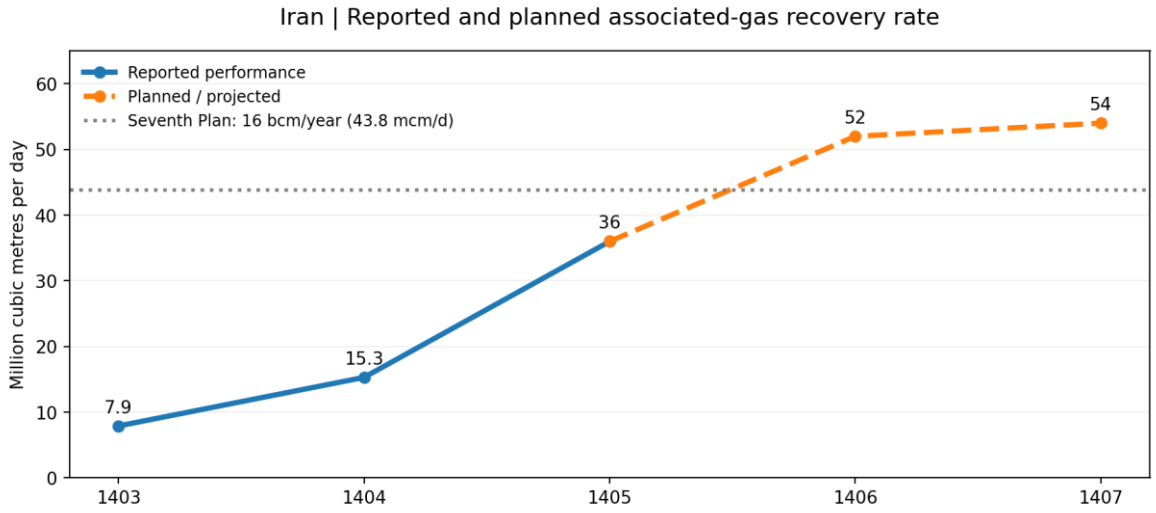


Figure 3. Annual rate of flare-gas recovery in Iran between 2024 and 2028

According to the information provided, around 57 units and participating organisations across different operating regions are involved in the gas-gathering and recovery chain. The network comprises contractors, private-sector participants, and petrochemical industries. Their integration with processing and consumption facilities can convert some of the gas previously burned at flares into dry gas suitable for grid injection, natural gas liquids, and petrochemical feedstock, while playing a complementary role in managing seasonal gas imbalances. Establishing the actual contribution of these activities to winter energy supply requires data on gas deliveries to the grid and end-use consumption.

Monitoring capabilities have also developed. At present, estimates of flared volumes are based largely on operating records, pipeline flow measurements and production data. Research initiatives have additionally used satellite observations and thermal imagery to assess national flaring levels. Nevertheless, Iran does not yet have an integrated national measurement, reporting and verification (MRV) system for flaring, and satellite-derived estimates are not used as the official reporting benchmark.

Recent projects mark the beginning of a more systematic approach to flaring management, although their effect on aggregate greenhouse-gas emissions remains limited. Delays in infrastructure completion, processing plants operating below capacity, financing constraints, the effects of sanctions and inadequate transmission networks mean that a substantial share of associated gas continues to be flared.

3.4. Development of Infrastructure and Major Projects in Iran’s Oil Industry

Iran’s history of controlling flaring predates the Seventh Development Plan. The AMAK project was an earlier infrastructure scheme for collecting and sweetening associated gas from the Bangestan formation in the Ahvaz, Ab Teymour, Mansouri, Kupal and Marun areas. According to publicly available reports, various stages of the project continued from the middle of the 1380s in the Iranian calendar until sections of the transmission and sweetening chain had been completed. This experience illustrates the need to develop compression stations, pipelines, sweetening units, and final customers as an interconnected system.

Among the larger developments, Dehloran NGL 3100, in southern Ilam Province, is designed to receive associated gas from nearby fields. Its ultimate planned capacity is 240 million cubic feet per day (MMcf/d), with phased commissioning initially at 80 MMcf/d. The source reports that domestically manufactured equipment accounts for more than 85% of the facility's equipment content.

NGL 3200, also known as the Persian Gulf Hoveyzeh Gas Refinery, serves associated-gas gathering and processing in the West Karun area. The Persian Gulf Bid Boland Gas Refinery likewise forms part of the gathering and processing chain for southern fields. Ministry of Petroleum information cited in the report refers to approximately 17 mcm/d of capacity across the activities associated with Bid Boland. Around the Ahvaz and Marun fields, projects linked to Maroon Petrochemical aim both to recover gas and to improve flare combustion efficiency during the transition. Offshore, Ministry plans include recovery schemes for the Forouzan field and other fields, with an announced aggregate target of approximately 8 mcm/d.

Further flare-reduction projects have been identified at the Assaluyeh gas refineries and Pars sites 1 and 2. Public announcements cited in the report put their combined target capacity at around 7 mcm/d.

3.5. Technology Bottlenecks and Requirements

Meeting emissions-reduction objectives across the oil and gas sector will require appropriate technology at every stage of associated-gas management, from collection and transmission to treatment, use and emissions monitoring. Persistent flaring reflects not only infrastructure shortfalls but also ageing equipment, restricted access to modern technology and the lack of integrated monitoring systems. Removing these constraints is therefore central to delivery of the Seventh Development Plan.

3.5.1. Technologies Required Across the Associated-Gas Management Chain

On this basis, the required technologies can be classified into five main categories, each covering a part of the associated-gas management chain.

- **Flare-gas gathering and recovery**
  The first step in reducing emissions is to prevent associated gas from reaching the flare. In this regard, the development of flare gas recovery systems (FGRS) is among the country's most important technological needs. By capturing gas routed to the flare and returning it to the production process or transferring it to consuming facilities, these systems play an essential role in reducing flaring.

  These systems can recover low-pressure gas, compress it and transfer it to processing or consumption facilities. They are among the established technologies used internationally to reduce avoidable flaring.

- **Associated-gas processing and utilisation**
  Once associated gas has been recovered, its economic utilisation requires processing and conversion technologies. The following technologies can be identified as the main options for its reuse:

- Gas reinjection into oil reservoirs.
- Pipeline delivery to the natural gas grid.
- Gas-to-power generation.
- Liquefied petroleum gas (LPG) recovery.
- Compressed natural gas (CNG) production.
- Small-scale LNG (mini-LNG) facilities.
- Gas-to-liquids technologies for converting gas into liquid fuels (GTL)
  These routes can reduce losses from flaring while raising the value realised from associated gas and limiting hydrocarbon waste.

- **Small-scale and modular processing**
  Many Iranian fields, particularly smaller, dispersed and offshore assets, cannot readily support the capital cost of large centralised processing plants. Small-scale solutions offer a practical alternative in such settings.

The principal technologies identified are:

1. Skid-mounted modular processing units.
2. Mobile gas-recovery units.
3. Small and medium-sized gas-processing plants (mini-GPPs).

Their shorter installation times, lower upfront costs and suitability for remote locations make these options potentially useful for near-term flaring reduction.

- **Emissions measurement and monitoring**
  The monitoring technologies prioritised in the report include:

1. Continuous emissions monitoring systems (CEMS).
2. Leak detection and repair (LDAR) systems.
3. Ultrasonic flowmeters.
4. Thermal imaging cameras.
5. Satellite-based flaring monitoring systems.

Together, these capabilities can improve measurement of flared-gas volumes and associated carbon dioxide, methane and other emissions. They also provide the technical foundation for a national MRV system.

Achieving emissions-reduction targets in the oil and gas sector requires the simultaneous development of technologies for associated-gas gathering, recovery, processing, reuse, and monitoring. In the short term, deploying flare-gas recovery systems and small-scale processing technologies can have the greatest immediate effect on flaring reduction. In the medium and long term, advanced gas-processing technologies, conversion into higher-value products, online monitoring systems, and the establishment of a national MRV system are the country's most important technological requirements for achieving sustained reductions in greenhouse-gas emissions.

3.6. Assessment of Investment Needs and Identification of International Cooperation Opportunities (B2B)

Alongside technology development and governance reform, Iran will need substantial investment in the infrastructure required to collect, transmit, process and monitor associated gas. Limited financing, unfinished capital projects, restricted access to newer technologies and underdeveloped mechanisms for attracting investment are identified as major reasons why flaring persists. A coherent project-financing programme, supported by partnerships with domestic private businesses and international technology and investment providers, is therefore among the requirements for meeting the Seventh Development Plan's objectives.

The report identifies five priority areas for investment:

- **Associated-gas gathering and transmission infrastructure**
  A substantial portion of current flaring is linked to inadequate collection and transport infrastructure. Priorities include pipelines, compression stations, gathering equipment and the completion of partly built facilities. Bringing NGL projects into full operation could make an especially important contribution.

- **Associated-gas processing capacity**
  Further investment is needed in gas-processing plants, particularly mini-GPPs, modular treatment facilities and gas-recovery equipment. In addition to reducing flaring, these assets can supply higher-value products such as LPG, petrochemical feedstock and fuel for power stations.

- **Monitoring and MRV infrastructure**
  Another priority is the measurement, reporting and verification system itself. A national flaring-monitoring network would need to combine satellite data, field instruments, online measurement equipment and data-management infrastructure. Such capabilities would enable more accurate emissions accounting, better assessment of project performance and reporting aligned with international standards.

- **Gas-recovery technologies**
  Opportunities also exist in the development and local manufacture of flare gas recovery systems (FGRS), vapour recovery units (VRUs), low-pressure gas compressors and associated equipment. These technologies support direct reductions in flaring and more productive use of gas otherwise lost.

- **Human capital and technical capabilities**
  Investment in workforce training, specialist engineering, operating skills and instruction in modern emissions measurement technologies will be equally important. Stronger technical capability can improve equipment utilisation and the quality of emissions management.

Achieving flaring-reduction and greenhouse-gas emissions-reduction targets requires coordinated investment in infrastructure, technology, monitoring systems, and human-capital development. Investment priorities should focus on completing associated-gas gathering and processing projects, establishing a national MRV system, developing gas-recovery

technologies, and creating sustainable financing mechanisms. Alongside these measures, business-to-business (B2B) cooperation in technology transfer, joint project implementation, monitoring-equipment development, and the exchange of technical expertise can play an important role in accelerating flaring reduction, improving energy efficiency, and achieving greenhouse-gas emissions-reduction targets. This approach is consistent with international experience and the frameworks discussed in this report, including GGFR and Zero Routine Flaring by 2030.

4. Economic, Environmental and Climate Impacts

Associated-gas recovery offers both economic and environmental benefits. From an economic perspective, gas previously burned at flares can be converted into dry gas, petrochemical feedstock, natural gas liquids, or industrial fuel, thereby creating added value while easing some of the pressure on the country's gas balance. The World Bank has estimated that the total value of gas flared worldwide in 2025 was approximately US$54 billion. This figure shows that, in many countries, reducing flaring represents not only an environmental cost but also an economic opportunity.

From an environmental perspective, reducing the volume of gas routed to flares can lower emissions of carbon dioxide from combustion, unburned methane, and pollutants produced by incomplete combustion, provided that the recovered gas is managed with appropriate emissions controls further along the value chain. The World Bank estimates that global flaring generated approximately 429 million tonnes of CO_2-equivalent emissions in 2025, of which around 50 million tonnes were attributable to unburned methane.

Iran's AMAK project offers an earlier example of the local impact of gas gathering. Domestic sources cited in the report suggest that, before the project, approximately 241 MMcf/d of associated sour gas was being flared. Subsequent phases enabled the collection and processing of much of that stream.

Despite the expansion of Iran's recovery capacity, World Bank satellite data cited in the report indicate that the country's total flaring volume increased in 2025. Possible explanations include higher oil output, the commissioning of new fields, growth in associated-gas production, delays between production increases and completion of gathering infrastructure, or constraints on processing capacity. The World Bank has also noted that investment and its eventual impact on observed flaring do not necessarily occur at the same time.

5. Conclusions: Assessment of Flaring in Iran and Policy Recommendations

The latest picture of gas flaring in Iran is mixed but explicable. On the one hand, Iran remains one of the world's largest gas-flaring countries, and the latest satellite data show that both flaring volume and flaring intensity increased in 2025. On the other hand, flare-gas gathering capacity has grown rapidly in recent years, and a range of large and small projects, both onshore and offshore, are being completed with the participation of the National Iranian Oil Company, petrochemical companies, and private investors.

According to the operational figures underpinning this report, the collection rate rose from 7.9 mcm/d at the end of 1403 to 36 mcm/d by the end of 1405. If the planned increases to 52 mcm/d in 1406 and 54 mcm/d in 1407 are delivered, annual collection capacity would exceed the Seventh Development Plan's 16 bcm target.

Experience elsewhere suggests that durable flaring reductions rarely result from technology alone. Instead, they depend on investment, enforceable regulation, meaningful economic incentives and credible monitoring. The report points to Norway, the United States, Kazakhstan, Brazil, Canada and Nigeria as examples of countries that have used infrastructure development, targeted finance and newer technologies to reduce flaring. International frameworks such as the World Bank's Zero Routine Flaring by 2030 initiative and Global Gas Flaring Reduction Partnership can also support knowledge transfer, stronger implementation standards and cross-border cooperation.

References

[1] World Bank, 2025 Global Gas Flaring Tracker Report (July 2025): https://www.worldbank.org/en/programs/gasflaringreduction/publication/2025-global-gas-flaring-tracker-report

[2] World Bank, Global Gas Flaring Tracker Report (June 23, 2026): https://thedocs.worldbank.org/en/doc/b34e0c054bb3fe3695e70154c28eef3f-0400072026/original/Global-Gas-FlaringTracker-June-23-2026.pdf

[3] World Bank, Global Gas Flaring Data, dataset 2012–2025: https://www.worldbank.org/en/programs/gasflaringreduction/global-flaring-data

[4] U.S. Energy Information Administration (EIA), Country Analysis Brief: Iran (October 2024): https://www.eia.gov/international/analysis/country/irn

[5] World Bank, Global Gas Flaring Tracker Report (2023), discussion of 98% assumed methane destruction efficiency: https://thedocs.worldbank.org/en/doc/5d5c5c8b0f451b472e858ceb97624a18-0400072023/original/2023-Global-Gas-Flaring-Tracker-Report.pdf


اتاق بازرگانی، صنایع، معادن و کشاورزی ایران
IRAN CHAMBER OF COMMERCE, INDUSTRIES, MINES & AGRICULTURE